

SEP 10 2007

007/015

10/764,852

RemarksA. No amendments, no new claims, no new issues

No amendments have been made.

No new claims have been presented.

There are no new issues.

B. The Legal Standard

35 U.S.C. §103 provides as follows:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The conventional standard for obviousness or nonobviousness is still the standard, as affirmed by the Supreme Court of the United States in KSR International Co. v. Teleflex Inc. et al., 550 U. S. ____ (2007) as follows on page 2 of the slip opinion:

In *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in *Hotchkiss v. Greenwood*, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15-17. The analysis is objective:

"Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Id.*, at 17-18.

While the sequence of these questions might be reordered in any particular case, the factors continue to define the inquiry that controls. If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under §103.

{18450.DOC} (Amendment After Final--page 5 of 13)

10/764,852

As to the Graham inquiry as to the level of ordinary skill in the art, the decision in KSR International Co. may relate one of ordinary skill in the art to one who will exercise ordinary creativity and common sense. Please see pages 14 and 16 of the slip opinion.

The Supreme Court of the United States in KSR International Co. demands 1) explicit analysis, 2) no mere conclusory statements, and 3) articulated reasoning. Please see page 14 of the slip opinion:

To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

The Supreme Court of the United States in KSR International Co. frowns on the TSM (teaching, suggestion, motivation) rule. Please see page 15 of the slip opinion.

In the years since the Court of Customs and Patent Appeals set forth the essence of the TSM test, the Court of Appeals no doubt has applied the test in accord with these principles in many cases. There is no necessary inconsistency between the idea underlying the TSM test and the Graham analysis. But when a court transforms the general principle into a rigid rule that limits the obviousness inquiry, as the Court of Appeals did here, it errs.

C. Examiners must follow KSR International Co.; here, however, the Office Action does not comply with the "scope and content" rule of KSR International Co.

The Final Rejection of August 1, 2007 includes the following paragraph bridging pages 2 to 3 of the Final Rejection:

The Examiner acknowledges that Kawajiri et al. and Brockwell et al. are silent as to the particular catalyst precursor used for the production of acrylic acid. Nevertheless, Kawajiri et al. teaches all the components of the catalyst. The primary reference, Kawajiri et al. goes on to say that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted..." (column 2, lines 56-58). This could include Applicant's catalyst precursor. [emphasis added].

(18450.DOC) (Amendment After Final--page 6 of 13)

10/764,852

First, it is respectfully submitted that the Examiner has correctly reviewed the scope and content of the Kawajiri et al. and Brockwell et al. references. These references are silent as to the particular catalyst precursor that is claimed.

Second, it is respectfully submitted that the Examiner must find some reference somewhere that discloses this particular catalyst precursor. If not, a Notice of Allowance must issue. Thus, a Notice of Allowance must issue in this case.

If the Examiner does find some reference somewhere that does disclose, or come very close to disclosing, what is claimed, then the differences between the prior art and the claims at issue are to be ascertained, and then the level of ordinary skill in the pertinent art is to be resolved. These two steps cannot be conducted here. Thus, again, a Notice of Allowance must issue in this case.

D. In addition to the above, the Office Action does not comply in at least four ways with KSR International Co.

Again, the Final Rejection of August 1, 2007 recites:

The Examiner acknowledges that Kawajiri et al. and Brockwell et al. are silent as to the particular catalyst precursor used for the production of acrylic acid. Nevertheless, Kawajiri et al. teaches all the components of the catalyst. The primary reference, Kawajiri et al. goes on to say that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted..." (column 2, lines 56-58). This could include Applicant's catalyst precursor. [emphasis added].

In addition to that set out in section C. above, in how many ways does the Office Action paragraph reproduced above not comply with KSR International Co.? In the following four ways:

{18450.DOC} (Amendment After Final--page 7 of 13)

10/764,852

First, the statement that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted" is not an explicit analysis.

Second, the statement that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted" is a mere conclusory statement. This statement can be utilized to deny the patentability of any catalyst at any time, anywhere.

Third, the statement that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted" is not an articulated reasoning.

Fourth, the statement that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted" cannot rise to being a teaching or suggestion that is found in the prior art because a teaching or suggestion cannot be such a general statement. It is respectfully submitted this type of TSM reasoning is exactly what KSR International Co. frowns upon.

In sum, even if the Patent Office is trying to ascertain the differences between the prior art and the claims in the paragraph bridging pages 2 to 3 of the Final

(18450.DOC) (Amendment After Final--page 8 of 13)

10/764,852

Rejection, the analysis of the Patent Office fails on the basis of the above noted four grounds.

E. Applicant's particular objections to the paragraph bridging pages 2 to 3 of the Final Rejection

Yet again, the Final Rejection of August 1, 2007 recites:

The Examiner acknowledges that Kawajiri et al. and Brockwell et al. are silent as to the particular catalyst precursor used for the production of acrylic acid. Nevertheless, Kawajiri et al. teaches all the components of the catalyst. The primary reference, Kawajiri et al. goes on to say that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted..." (column 2, lines 56-58). This could include Applicant's catalyst precursor. [emphasis added].

This objection is too much long a leap of interpretation of the Kawajiri et al. reference and too much assertive and unreasonable. The art of Kawajiri et al. is featured by a way of disposing a catalyst and therefore much differs from the claimed invention which is featured by a catalyst itself used. In addition, Kawajiri et al. does not disclose or suggest that the use of the characterizing composite-oxide catalyst in the present invention provides excellent results in respect to such as activity, selectivity, and catalyst life time. Therefore, even a skilled artisan could not have easily led to the finding that the use of the composite-oxide catalyst as defined in the present invention is appropriate for obtaining the above excellent results.

Furthermore, as mentioned above, the Kawajiri et al. reference relates to a way of disposing a catalyst, and the passage from column 2, lines 56-58 of the Kawajiri et al. reference as referred to by the Examiner should be interpreted as only saying that conventional catalysts for

(18450.DOC) (Amendment After Final--page 9 of 13)

10/764,852

producing acrylic acid can be applied to the characterizing way of disposing a catalyst in Kawajiri et al. No basis for denying the patentability of the claimed invention exists in the Kawajiri et al. reference. If the Examiner denies the patentability of the present invention on the basis of the above passage of the Kawajiri et al. reference, then, whatever novel and non-obvious catalyst may be developed, will he or she deny its patentability on the basis of the above passage of the Kawajiri et al. reference? There is no other way of saying that the Examiner's objection is clearly a wrong recognition.

F. Applicant's particular objections to the third paragraph on page 3 of the Final Rejection

The third paragraph on page 3 of the Final Rejection provides as follows:

The primary reference, Kawajiri et al. teaches an acrylic acid yield of over 94.0% after a reaction time of 8,000 hours (column 7, table 2, examples 1 and 2). This is a 6% higher yield than Applicant's example 6, from Table 1, in which the acrylic acid yield is 88% after 100 hours. Furthermore, the comparisons from Table 1, abstracted from the specification, are not convincing since there is no specific side-by-side comparison of the different components from the synthesis of the catalyst or catalyst precursor.

This objection is also a wrong recognition. Depending on reaction conditions, the performance of a catalyst much changes. Examples 1 and 2, as referred to by the Examiner, of Kawajiri et al. differ from Example 6 of the present invention in respect to reaction conditions going so far as such as gas composition (concentration), gas purity, specifications of catalyst packing, and space velocity. It is unreasonable in itself to compare the examples which differ in respect to such many reaction conditions. Furthermore, the acrylic acid yield as evaluated in Examples 1 and 2 of Kawajiri et al. is that produced from acrolein, whereas the acrylic acid yield as evaluated in Example 6 of

{19450.DOC} (Amendment After Final--page 10 of 13)

10/764,852

the present invention is that produced from propylene which is a precursor of acrolein. Therefore, it is a matter of course that the acrylic acid yields in Examples 1 and 2 of Kawajiri et al. differ from that in Example 6 of the present invention. In order to correctly compare those examples with regard to the acrylic acid yield, it is meaningless unless the comparison is made under the same reaction conditions and from the same starting material. Thus, in order to correctly compare the present invention and the art of Kawajiri et al., the comparison should be made between Example 6 and Comparative Example 4 in the present application, as argued in the Response (dated June 2, 2007) to the previous Office Action (of March 28, 2007). It is quite obvious to a skilled artisan that the catalyst of Comparative Example 4 of the present application, which catalyst has a composition falling in the range as disclosed in Kawajiri et al. and was prepared by a conventional process, is the same catalyst as disclosed in Kawajiri et al., and that the catalyst of Example 6 of the present application is clearly more excellent than the catalyst of Comparative Example 4 of the present application in respect to both the acrylic acid yield and the catalyst life time. Therefore, the Examiner's objection is an erroneous recognition.

G. Housekeeping matters

G.1. Period For Reply

A shortened statutory period for reply was set to expire three months from the mailing date of the Office Action of August 1, 2007. August 1, 2007 plus three months is November 1, 2007. This paper is being filed on or before Thursday, November 1, 2007 and may be being filed on or

(18450.DOC) (Amendment After Final--page 11 of 13)

10/764,852

before Monday, October 1, 2007.

G.2. Status

The Office Action of August 1, 2007 was made final.

G.3. Disposition Of Claims

Claims 2-4 are pending.

G.4. Application Papers

This case includes no drawings.

G.5. Priority under 35 U.S.C. §§ 119 and 120

Acknowledgement of the claim for foreign priority was made in the Office Action dated March 28, 2007. This is appreciated.

Receipt of the certified copy of the priority document was acknowledged in the Office Action dated March 28, 2007. This is appreciated.

G.6. Attachments

Applicant has filed five PTO-1449 forms in this case, a first and second with the filing of this case on January 26, 2004, a third on August 4, 2004 (stamped as received on August 9, 2004), a fourth on April 11, 2006, and a fifth on October 15, 2006. All of the references on the PTO-1449 forms have been initialed, and all of the PTO-1449 forms have been signed and returned. Such is very much appreciated.

H. Summary

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner

{18450.DOC} (Amendment After Final--page 12 of 13)

SEP 10 2007

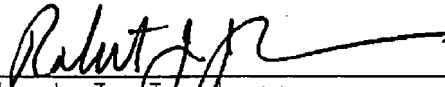
10/764,852

is respectfully invited to make contact with the undersigned
by telephone if such would advance prosecution of this case.

Respectfully submitted,

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